



AMENDMENTS

IN THE DRAWINGS:

- Please replace Figs. 2, 3 and 8 as originally filed with the corrected Figs. 2, 3 and 8 (3 sheets) attached hereto.

IN THE SPECIFICATION:

09/814495

- Please replace the abstract as follows.

a1
The present invention is a cooling apparatus and method, and more particularly, an apparatus and method for cooling the air exiting an electronics enclosure. Air is taken into the enclosure and heated by the electronic equipment. The air is then expelled through a heat exchanger, which cools the exiting air. The exiting air is cooled using an external source of cooling liquid, which absorbs the heat from the exiting air. This absorbed heat is then expelled from the liquid outside of the environment containing the enclosure. Cooling the air exiting the enclosure causes the enclosure to present a neutral heat load to a room containing such an enclosure. Cooling the exiting air obviates the necessity of increasing the room air conditioning capacity to account for the heat added to the room by the electronics within the enclosure. Further, the invention decreases the possibility of moisture condensation within the enclosure and also provides a more efficient cooling system than is available from prior art devices and techniques.

- Please replace the paragraph on page 9, lines 3-10 with the following.

a2
Conversely, using the present invention, the ambient air enters the enclosure at a typical temperature of 75 degrees Fahrenheit and a typical relative humidity of 50 percent. The air is heated by the electronic components to a typical temperature of 95 degrees Fahrenheit. This decreases the relative humidity of the air to approximately 26 percent. When the heat is removed by the heat exchanger, the relative humidity again increases to a typical value of 50 percent. Because the air always contains a relatively low amount of water as compared to saturation, the possibility of condensation is virtually non-existent.

- **Please replace the paragraph on page 11, lines 16 – 23 with the following.**

a3
Thermostatic valve 320 has a thermostatic operator 322 that changes the valve position according to temperature control. A temperature sensor and other required controls (not shown) operate thermostatic valve 320. The valve controls the flow of cooling fluid in the heat exchanger and ensures that the air exiting the heat exchanger is at the same temperature as the room temperature of the computer room in which the enclosure is housed. Thermostatic valve 320 attaches to a tee coupling 312 that connects the valve to adapters 310, 310'. Adapters 310, 310' connect to the external cooling source and returns cooling fluid to the external cooling source.

- **Please replace the paragraph on pages 11-12, lines 24 - 4 with the following.**

a4
Another embodiment of the invention is illustrated in Figure 8. In this embodiment, cooling apparatus 250 is contained within the enclosure 210 and mounted on rack 220. The general principles of operation of this embodiment are substantially the same as the embodiments discussed above, however, the airflow path is different. In the airflow path of the present embodiment, air is drawn in through the front 212 of enclosure 210. After passing through electronics 240 and absorbing heat therefrom, the air passes through the interior of enclosure 210 and is drawn back through cooling apparatus 250. Cooling apparatus 250, which operates in the same manner as described for the previous embodiment absorbs the heat from the air flow and rejects this heat into the cooling fluid delivered to the external source (not shown). Blower 280 draws air through the cooling apparatus, which may be of the designs that are known in the art. The cooled air then returns to electronics 240 again traveling through enclosure 210.

IN THE CLAIMS:

- **Please amend the claims as follows.**

a5
1. (AMENDED) A cooling system for an enclosure containing heat-producing equipment, the cooling system comprising an air-to-liquid heat exchanger, wherein the heat exchanger absorbs heat from air exiting the enclosure and expels the heat outside an environment containing the enclosure.